CLAIMS

What is claimed is:

1. An isolated acetylated immunodeficiency virus Tat polypeptide, wherein said polypeptide comprises at least one acetylated lysine residue.

2. The polypeptide of claim 1, wherein said polypeptide is a human immunodeficiency virus-1 Tat polypeptide, and wherein said acetylated lysine is Lys-50.

3. The polypeptide of claim 1, wherein said polypeptide comprises the amino acid sequence as set forth in any one of SEQ ID NOs:1-23.

4. The polypeptide of claim 1, wherein said polypeptide comprises the amino acid sequence Ser-Tyr-Gly-Arg-acetylated Lys-Lys-Arg-Arg-Gln-Arg-Cys (SEQ ID NO:03).

5. The polypeptide of claim 1, wherein said polypeptide comprises the amino acid sequence Ser-His-Gly-Arg-acetylated Lys-Lys-Arg-Arg-Gln-Arg-Cys (SEQ ID NO:04).

6. The polypeptide of claim 1, wherein said polypeptide is linked to a carrier.

7. An immunogenic composition comprising an acetylated immunodeficiency virus Tat polypeptide, wherein said polypeptide comprises at least one acetylated lysine residue; and a pharmaceutically acceptable excipient.

8. The immunogenic composition of claim 7, wherein said polypeptide is a human immunodeficiency virus-1 Tat polypeptide, and wherein said acetylated lysine is Lys-50.

9. The immunogenic composition of claim 7, wherein said polypeptide comprises the amino acid sequence as set forth in any one of SEQ ID NOs:1-23.

10. The immunogenic composition of claim 7, wherein said polypeptide comprises the amino acid sequence Ser-Tyr-Gly-Arg-acetylated Lys-Lys-Arg-Arg-Gln-Arg-Cys (SEQ ID NO:03).

11. The immunogenic composition of claim 7, wherein said polypeptide comprises the amino acid sequence Ser-His-Gly-Arg-acetylated Lys-Lys-Arg-Arg-Gln-Arg-Cys (SEQ ID NO:04).

12. The immunogenic composition of claim 7, wherein said polypeptide is linked to a carrier.

13. The immunogenic composition of claim 12, wherein said polypeptide is linked directly to the carrier.

14. The immunogenic composition of claim 12, wherein said polypeptide is linked to said carrier through a linker.

15. The immunogenic composition of claim 12, wherein said carrier is selected from a protein, a polysaccharide, a polyamino acid, an inactivated bacterial toxin, an inactivated bacterium, an inactivated viral particle, a lipid, and a liposome.

16. The immunogenic composition of claim 12, wherein said carrier is selected from tetanus toxoid, diphtheria toxoid, purified protein derivative of *Mycobacterium tuberculosis*, and inactivated exotoxin A from *Pseudomonas aeruginosa*.

17. The immunogenic composition of claim 7, further comprising an adjuvant.

18. The immunogenic composition of claim 17, wherein the adjuvant is an aluminum salt adjuvant.

19. A method of inducing an immune response to human immunodeficiency virus-1 (HIV-1) Tat protein in an individual, the method comprising administering an acetylated Tat

protein in an amount effective to induce an immune response to HIV Tat protein.

20. The method of claim 19, wherein said acetylated Tat protein is coupled to a carrier.

21. The method of claim 19, wherein said acetylated Tat protein is administered in a formulation comprising an adjuvant.

22. The method of claim 19, wherein said acetylated Tat protein is administered systemically.

23. The method of claim 22, wherein said acetylated Tat protein is administered subcutaneously.

24. A method of inhibiting transcriptional activation of human immunodeficiency virus (HIV), the method comprising administering an acetylated HIV Tat protein to the individual, wherein antibodies to the Tat protein are produced, and wherein said antibodies bind to serum Tat protein and reduce entry of the Tat protein into the cell.

25. An isolated antibody that specifically binds acetylated Tat protein.

26. The antibody of claim 25, wherein said antibody is a monoclonal antibody.

27. The antibody of claim 25, wherein said antibody is a polyclonal antibody.

28. The antibody of claim 25, wherein said antibody is a humanized mouse antibody.